

positive pressure.” The recitation of “positive pressure” requires a pressure greater than ambient pressure. By collapsing with a positive pressure, the present invention allows for (but does not require) making preforms and fibers with reduced ovality and fewer defects. In contrast, Matsumura discloses collapsing a preform tube under vacuum (column 7, lines 8-12 and column 13, lines 61-65). Research has shown that collapsing under a slight negative pressure (vacuum) often leads to ovality of the fibers and an increase in defects. Thus, Matsumura does not anticipate claims 1 and 9.

Consequently, independent claims 1 and 9 are patentable over Matsumura. Their dependent claims are patentable for at least the same reasons.

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumura as applied to claims 1-5 and 7-12 above, and further in view of U.S. Patent No. 4,465,707 (“Fanucci”). Applicants respectfully traverse this rejection.

Even assuming, *arguendo*, that Fanucci provides the teaching suggested by the Examiner, Fanucci fails to remedy the deficiency of Matsumura explained above with regard to claim 1. As claim 6 depends from claim 1, it is patentable over Matsumura and Fanucci for at least this reason.

Claims 13 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumura as applied to claims 1-5 and 7-12 above, and further in view of U.S. Patent No. 6,201,917 (“Campion”). Applicants respectfully traverse this rejection.

Even assuming, *arguendo*, that Campion provides the teaching suggested by the Examiner, Campion fails to remedy the deficiency of Matsumura explained above with regard to claim 9. As claims 13 and 14 depend from claim 9, they are patentable over Matsumura and Campion for at least this reason.

Claims 15 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumura as applied to claims 1-5 and 7-12 above, and further in view of U.S. Patent No. 5,763,081 (“Ohga”). Applicants respectfully traverse this rejection.

Even assuming, *arguendo*, that Ohga provides the teaching suggested by the Examiner, Ohga fails to remedy the deficiency of Matsumura explained above with regard to

claim 9. As claims 15 and 16 depend from claim 9, they are patentable over Matsumura and Ohga for at least this reason.

Claims 17-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumura as applied to claims 1-5 and 7-12 above, and further in view of U.S. Patent 5,745,615 (“Atkins”). Applicants respectfully traverse this rejection.

Claim 17 recites a “method of making a fiber grating” that includes, *inter alia*, the step of providing an enhanced photosensitive fiber made according to claim 9.” Claim 9 recites a method of making an enhanced photosensitive fiber that includes the step of “making a preform using modified chemical vapor deposition wherein the preform is collapsed in a reducing atmosphere with a positive pressure.”

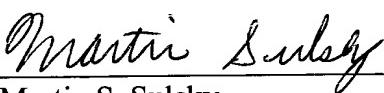
As explained above in regard to claim 9, Matsumura fails to teach or suggest a method including the step of “making a preform using modified chemical vapor deposition wherein the preform is collapsed in a reducing atmosphere with a positive pressure.” Atkins does not remedy this deficiency of Matsumura. Thus, claim 17 is patentable over Matsumura and Atkins. Its dependent claims are patentable for at least the same reasons.

Conclusion

In view of the foregoing remarks, Applicants believe that the application is in condition for allowance. An early notice to this effect is earnestly solicited. If there are any questions regarding the application, the examiner is courteously invited to contact the undersigned attorney at the local number below.

Respectfully submitted,

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